UNITED STATES DISTRICT COURT
FOR THE
DISTRICT OF MASSACHUSETTS

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| JOHN HANCOCK LIFE INSURANCE COMPANY, JOHN HANCOCK VARIABLE LIFE INSURANCE COMPANY, and MANULIFE INSURANCE COMPANY (f/k/a INVESTORS PARTNER LIFE INSURANCE COMPANY), | CIVIL ACTION NO. 05-11150-DPW |
| Plaintiffs, | |
| v. | |
| ABBOTT LABORATORIES, | |
| Defendant. | |

**JOHN HANCOCK'S RESPONSE TO ABBOTT'S OBJECTIONS TO THE AFFIDAVIT OF BARRY I. GOLD**

Plaintiffs John Hancock Life Insurance Company, John Hancock Variable Life Insurance Company and Manulife Insurance Company (collectively, "John Hancock" or "Hancock") hereby respond to Abbott Laboratories' ("Abbott") objections to the Affidavit of Barry I. Gold (the "Gold Affidavit").

Abbott raises four baseless objections to Dr. Gold's direct testimony. First, it claims Dr. Gold is offering opinions not disclosed in his expert reports. Not so. Dr. Gold's reports provided Abbott with adequate notice of his trial testimony. In any event, Abbott deposed Dr. Gold in June 2007 and discovered the very opinions that it now claims were never disclosed. Second, Abbott claims that Dr. Gold is improperly expressing opinions regarding Abbott's

state of mind. He is not. Dr. Gold is simply stating, based on his experience, what a reasonable management-level employee at a major pharmaceutical company knew or should have known based on the facts available to Abbott. Third, Abbott claims that Dr. Gold does not have the qualifications to discuss statistical issues related to clinical trials. Dr. Gold has years of experience on that subject. Fourth, Abbott claims Dr. Gold is offering improper lay opinions. On the contrary, he is simply identifying evidence in Abbott's own documents that support his opinions. Abbott's objections to his affidavit should be overruled.

## Discussion

### I. BECAUSE ABBOTT HAD FULL NOTICE OF THE OPINIONS CONTAINED IN DR. GOLD'S TRIAL AFFIDAVIT, THOSE OPINIONS ARE TIMELY UNDER THE RULES.

Rule 26(a)(2)(B) requires that an expert report contain "a complete statement of all opinions the witness will express and the basis and reasons for them." Where a party has not complied with Rule 26(a)(2)(B), the testimony should be admitted if the non-disclosure was justified or harmless. *See* Fed. R. Civ. P. 37(c)(1). Significantly, Rules 26(a)(2)(B) and 37(c)(1) "are not designed to prohibit a witness from testifying about anything not explicitly mentioned in [the expert's] Rule 26 disclosure, but rather to protect one party from being blindsided by another party with new opinions never before discussed." *Cary Oil Co., Inc. v. MG Refining & Marketing, Inc.*, 2003 WL 1878246 at *4 (S.D.N.Y. April 11, 2003); *see also Muldrow ex rel. Estate of Muldrow v. Re-Direct, Inc.*, 493 F.3d 160, 167 (D.C. Cir. 2007).

Indeed, Rule 26(a)(2)(B) "does not limit an expert's testimony simply to reading his report ... The rule contemplates that the expert will supplement, elaborate upon, [and] explain ... his report in his [trial] testimony." *Muldrow*, 493 F.3d at 167. Moreover, issues explored at an expert's deposition put a party on notice that those issues are among the opinions that the

expert might testify to at trial. *See, e.g.*, *Smith v. Tenet Healthsystem SL, Inc.*, 436 F.3d 879 (8th Cir. 2006) (while expert witness did not include reliance on x-rays in his pretrial disclosure, discussion of x-rays during deposition put plaintiff on notice and rendered Rule 26 violation harmless); *Baldauf v. Davidson*, 2007 WL 2155967 at *8 (S.D. Ind. July 24, 2007).

A. Dr. Gold's Expert Reports Placed Abbott On Notice Regarding The Opinions Set Forth In His Affidavit.

Abbott claims that statements in Dr. Gold's trial affidavit (*i.e.*, ¶¶19-22, 26, 35-38, 51, 71-72, 76-80, 82, 84, and 87-89) are "new opinions that were not disclosed" in his initial and updated expert reports. Abbott is attempting to do just what the case law forbids: requiring that an expert report conform precisely with the expert's trial testimony. Dr. Gold's report indisputably put Abbott on notice of all the opinions expressed in his trial testimony.

For example, Abbott complains that Dr. Gold states new opinions regarding how spending reflects a pharmaceutical company's confidence in the commercial prospects of a compound. (Abbott's Motion at 1). However, Dr. Gold provided that very opinion to Abbott in his report: "[Pharmaceutical companies] manage their portfolios [by] deleting or discontinuing compounds when their risk of failure significantly rises, [and] accelerating investment in compounds when their probability of success increases . . . ." (Updated Report at 10, attached to Abbott's Motion as Ex. B).

Abbott purports to be blindsided by Dr. Gold's trial testimony that subjects in the M99-114 trial experienced substantial adverse events that caused Abbott management to conclude that ABT-594 would likely be terminated. (Abbott's Motion at 1). Dr. Gold expressed that very opinion in his report as well: "Dr. Gold is expected to discuss the nature and identification of adverse events and premature terminations . . . and what role and significance

they typically have in the development decision-making process." (Updated Report at 10, attached to Abbott's Motion as Ex. B). He also noted that a "high number of adverse events during a clinical trial can be a signal that the results are likely to be negative, especially if the protocol specifies an intent-to-treat analysis, and can have a devastating effect on the long term commercial prospects for compound being studied." (*Id.* at 13-14).

Abbott remarkably claims surprise by Dr. Gold's testimony regarding Abbott's termination of all development activities for ABT-518 -- notwithstanding that Abbott's conduct regarding that compound has been squarely at issue for years. In his report, Dr. Gold stated that he would discuss "significant development issues" including "a permanent or temporary hold on a clinical trial...." (*Id.* at 11.) Abbott's other purported "new opinions" are likewise identified in Dr. Gold's expert report. (*See e.g.*, Updated Report at 3 and 16 (discussing target profiles and ABT-773's divergence from its profile), 3 (discussing replacement and back-up compounds), 5 (discussing FDA's pediatric rule); and 14-15 (discussing issues relating to the enrollment process).

Moreover, Dr. Gold indisputably put Abbott on notice that he would further elaborate on and support the opinions in his report based on documents or deposition testimony that he would review prior to trial. (*Id.* at 2). That is exactly what he did. Dr. Gold's purported "new opinions" are not really opinions at all. In many cases, Dr. Gold is simply identifying Abbott's *own* documents that support his previously expressed opinions. (*See, e.g.*, Gold Aff. ¶¶ 19-20 (identifying Abbott documents supporting opinion that spending is a barometer of a company's commercial outlook for a compound under development); ¶ 36 (identifying Abbott documents relating to development of replacement compound for ABT-594); ¶¶ 71-72 (identifying Abbott documents that reflect its difficulties enrolling patients in the M99-114

trial, and engaging a recruitment firm to assist in enrollment efforts); ¶¶ 76-78 (identifying Abbott documents reflecting high incidence of nausea, vomiting and dizziness and concern by Abbott employees that adverse events are drug-related); and ¶ 84 (identifying Abbott documents demonstrating shut down of all development activities for ABT-518)).

Thus, Abbott's contention that Dr. Gold's trial affidavit provided new opinions is without merit.

B. Abbott Also Learned About The Opinions In Question During Its Deposition Of Dr. Gold.

Nowhere in its Motion does Abbott inform the Court that it *discovered and explored each of the purported new opinions* at Dr. Gold's deposition on June 1, 2007. Thus, pursuant to Fed. R. Civ. P. 37(c), none of Dr. Gold's opinions should be precluded because Abbott had ample notice of them. As noted above, under Fed. R. Civ. P. 37(c), a "harmless" violation of Rule 26 does not mandate exclusion of the evidence. *Muldrow ex rel. Estate of Muldrow*, 493, F.3d at 167.

Abbott deposed Dr. Gold on virtually all of his "new opinions." Dr. Gold testified regarding Abbott's termination of ABT-518. (*See, e.g.,* Gold Trans. at 55, 64-66, and 68, attached hereto at Ex. 1). He testified regarding Abbott's knowledge of adverse events during M99-114 trial and the significance of those events for the prospects of ABT-594. (*Id.* at 55, 78-83, and 93). He testified regarding Abbott's failure to disclosure dosing and safety issues regarding ABT-773 (*id.* at 68-70 and 138-40). Finally, Abbott's counsel asked Dr. Gold to give his "opinions [whether] Big Pharma companies only begin to develop backup or replacement compounds when a compound is about to be terminated[.]" (*Id.* at 147). Thus, Abbott's claim of unfair surprise regarding Dr. Gold's trial affidavit should not be credited.

## II. DR. GOLD'S OPINIONS REGARDING THE FACTS OF THIS CASE ARE ADMISSIBLE UNDER FED. R. EVID. 702.

### A. Dr. Gold Is Not Testifying To Abbott's State of Mind

Abbott wrongly contends that Dr. Gold is testifying to Abbott's state of mind. (Abbott's Motion, at 5-7). Expert testimony is admissible where: (1) the testimony is based upon sufficient facts or data; (2) the testimony is the product of reliable principles and methods; and (3) the witness has applied the principles and methods reliably to the facts of the case. Fed. R. Evid. 702. Dr. Gold has been offered as an expert in the field of research and development of pharmaceutical compounds by large pharmaceutical companies such as Abbott.

Abbott's objections to the so-called "state of mind" opinions should be overruled. First, Dr. Gold is testifying to the conclusions that a reasonable management-level pharmaceutical executive should have drawn regarding the development prospects of the compounds at issue based on facts in Abbott's possession. The First Circuit has allowed the admissibility of such testimony in a factual setting remarkably similar to this one -- the significance of clinical trial results for drug compounds. *See, Maruho Company, Ltd. v. Miles, Inc.*, 13 F.3d 6, 10 (1st Cir. 1993) (Breyer, J). (stating that plaintiff may have reached a favorable result had he presented expert testimony on what a reasonable pharmaceutical executive would have thought of an important negative drug study showing adverse events for a sublicensed compound).

Second, Abbott's claim that Dr. Gold is testifying about the FDA's "state of mind" is no more warranted. Dr. Gold has testified that "FDA representatives expressed concern regarding the safety profile" of ABT-773 based on Abbott documents discussing "FDA concerns regarding 'Liver Toxicity Issues.'" (Gold Aff., ¶ 51). This opinion is the product of

reliable principles and constitutes permissible expert testimony. *See In re Prempro Products Liability Litigation*, 2006 WL 5217764 at *6 fn. 59 (E.D. Ark. Sept 13, 2006) ("What FDA officials would have done with certain...information such as ...adverse event reports" is admissible if presented by a qualified expert).

B. Dr. Gold Is Qualified To Testify Regarding The Role Statisticians Play In The Development of Clinical Trials.

Abbott objects to paragraphs 59 and 60 of Dr. Gold's affidavit on the ground that he has no expertise in statistics. Abbott is incorrect. A district court "has broad discretionary powers in determining whether or not the proposed expert is qualified." *Bogosian v. Mercedes-Benz of North America, Inc.*, 104 F.3d 472, 476 (1st Cir. 2007). Dr. Gold's states at paragraph 59 and 60 that "[o]ne or more statisticians usually are involved in the development of [a written] protocol." He explains the role that statisticians play in developing these protocols, what the power of a study means to statisticians, and that "pharmaceutical companies frequently will require that a trial 'reach 80% power' in order to be considered statistically valid." With significant experience in "manag[ing] clinical trials," Dr. Gold is certainly qualified to testify regarding the role statisticians play in the types of trials he has expertise in managing. As an expert in the field of research and development of pharmaceutical compounds by large pharmaceutical companies such as Abbott, he may also opine on the "power" pharmaceutical companies typically require. Such testimony lies wholly within Dr. Gold's area of expertise and should not be precluded.

C. Dr. Gold Should Be Allowed To Give His Opinions Based On His Review of Documents Produced By Abbott In This Case.

Abbott's last set of objections relates to its contention that certain paragraphs are "nothing more than improper advocacy for Hancock's version of the facts." Yet, these

paragraphs simply reflect an effort by Dr. Gold to incorporate examples of activities and events in this case into his discussion of research and development activities in general. This effort should come as no surprise to Abbott; at his deposition, Dr. Gold testified as follows: "I am trying so far as possible when I try to make a point about drug development to find a relevant Abbott document ... that supports the point I'm trying to make." Ex. 1 at 55. John Hancock respectfully submits such opinions will "assist" the Court, as contemplated by Fed. R. 702, and thus, should be admitted at trial.

## Conclusion

For the foregoing reasons, John Hancock respectfully requests that the Court overrule Abbott's objections to the Gold Affidavit.

Respectfully submitted,

JOHN HANCOCK LIFE INSURANCE COMPANY, JOHN HANCOCK VARIABLE LIFE INSURANCE COMPANY and MANULIFE INSURANCE COMPANY
By their attorneys,

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Date: March 2, 2008

**CERTIFICATE OF SERVICE**

I hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF), and that paper copies will be sent to those non-registered participants (if any) on March 2, 2008.

*/s/* Richard C. Abati
Richard C. Abati

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# EXHIBIT 1

UNITED STATES DISTRICT COURT

DISTRICT OF MASSACHUSETTS

Civil Action No. 05-11150-DPW

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JOHN HANCOCK LIFE INSURANCE COMPANY, JOHN HANCOCK VARIABLE LIFE INSURANCE COMPANY, and MANULIFE INSURANCE COMPANY (f/k/a INVESTORS PARTNER INSURANCE COMPANY),

Plaintiffs,

v.

ABBOTT LABORATORIES,

Defendant.

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VIDEOTAPED DEPOSITION OF BARRY I. GOLD, PhD, a witness called on behalf of the Defendant, taken pursuant to the Federal Rules of Civil Procedure, before Maureen O'Connor Pollard, RPR, CLR, and Notary Public within and for the Commonwealth of Massachusetts, at the offices of Donnelly, Conroy & Gelhaar, LLP, One Beacon Street, Boston, Massachusetts, on the 1st of June, 2007, commencing at 9:11 o'clock a.m.

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Videographer: Maura Cunningham



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EXHIBITS





PROCEEDINGS

THE VIDEOGRAPHER: Here begins videotape number one in the deposition of Dr. Barry I. Gold, Ph.D in the matter of Hancock, et al versus Abbott Laboratories in the United States District Court for the District of Massachusetts, case number Civil Action 05-11150 DPW.

Today's date is June 1, 2007. The time on the video monitor is 9:11. The video operator today is Maura Cunningham contracted by Merrill Legal Solutions, 101 Arch Street, Boston, Massachusetts, 02110.

This video deposition is taking place at One Beacon Street, Boston, Massachusetts and was noticed by Ozge Guzelsu of Munger, Tolles & Olson.

Counsel, please voice identify yourselves and state whom you represent.

MR. ZWICKER: Joseph Zwicker, Choate, Hall & Stewart, Boston, Massachusetts for the Plaintiffs and the witness.

MS. GUZELSU: Ozge Guzelsu, Munger,



Tolles, Olson for Abbott Laboratories.

THE VIDEOGRAPHER: The court reporter today is Maureen Pollard of Merrill Legal Solutions.

Would the reporter please swear in the witness?

BARRY I. GOLD, PhD,
having been identified by New York State driver's license, being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION
BY MS. GUZELSU:

Q. Good morning, Dr. Gold.
**A. Good morning.**
Q. Could you please state your full name for the record, please?
**A. Barry I. Gold.**
Q. And what is your current business address?
**A. 217 Lane Gate Road, Cold Spring, New York.**
Q. Is that also your home address?
**A. Also my home address.**

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says that you're planning to provide the Court with an expert tutorial on the research and development of new pharmaceutical compounds, is that correct?
**A. Correct.**
Q. And is there anything you intend to say during the tutorial that's not set forth in this report?. Understanding that if you review anything later that changes your opinions or gives you additional information that may change, but as it stands today based on what you've reviewed so far?
**A. Based on my review so far --**
MR. ZWICKER: Just let me object. Asked and answered, compound.
Go ahead.
**A. Based on what I've reviewed so far, my PowerPoint presentation is well supported by my narrative.**
**BY MS. GUZELSU:**
Q. The expert tutorial that you mention on Page 1?
**A. Yes.**
Q. That's going to be entirely contained

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in your PowerPoint presentation?
**A. Yes.**
Q. Okay. It also says that you might be called upon to comment on particular activities or events in Abbott's research and development of certain compounds encompassed by the Research Funding Agreement.
**A. Yes.**
Q. What activities and events are you planning on commenting on?
MR. ZWICKER: Objection.
**A. I said the report is not complete yet. I am trying in so far as possible when I try to make a point about drug development to find a relevant Abbott document from the list provided that supports the point I'm trying to make.**
**So if there's a point about Phase I development, for example, I'm trying to reference an Abbott document that discusses Phase I.**
**BY MS. GUZELSU:**
Q. I see.
The documents that you were provided, did you -- were those selected by John Hancock's

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counsel for you?
**A. Yes.**
Q. Did you ask to see any additional documents?
**A. No.**
Q. You were satisfied with the documents that were provided to you?
**A. Yes.**
MR. ZWICKER: You're talking about documents that were provided to him not just in connection with his report, but at all times, right?
MS. GUZELSU: At all times.
MR. ZWICKER: Is the answer the same?
THE WITNESS: (Nodding in the affirmative).
MR. ZWICKER: That's a yes, right?
THE WITNESS: Yes, the same.
BY MS. GUZELSU:
Q. Have you ever worked on the development of anti-infective compounds?
MR. ZWICKER: Objection.
**A. No.**
**BY MS. GUZELSU:**

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Q. How about cancer drugs?
**A. I mentioned earlier that I was responsible for the entire cancer portfolio when I was at Knoll.**
Q. Okay. What kind of cancer compounds were you working on at Knoll?
**A. The mechanism of action.**
Q. Were any of them MMPIs?
**A. No, they were a different mechanism.**
Q. And I know that you mentioned that you worked on pain medications as well?
**A. I did.**
Q. Were any of them, I'm going to try and get this right, neuronal nicotinic receptors, the type of drug that ABT-594 was?
MR. ZWICKER: Objection.
**A. No. The pain medications I was responsible for were not nicotinic neuronal receptor agonists. But when I was at Anaquest, my search for new muscle relaxants involved drugs active at the neuromuscular receptor, and that's a nicotinic receptor, so I have expertise in nicotinic receptors.**
MS. GUZELSU: Could you read that back

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Q. These lines aren't numbered, so bear with me in terms of pointing particular sentences in your report out.

On the third paragraph on Page 3 towards the bottom, it's four lines from the bottom, it says you "will discuss the importance of product differentiation in the marketplace, and its role in developing target product profiles."

Can you briefly discuss the importance of product differentiation in the marketplace?

**A. Product differentiation is vital for pharmaceutical companies, unless they're first to market in an area. And if they are first to market with a new technology, Pfizer's Viagra for example, there's no reason to differentiate beyond the fact that they've launched a product with a novel mechanism of action.**

**But for any company that is prepared to enter the same marketplace with the same mechanism of action with a competing drug, differentiation in the marketplace takes a variety of forms.**

**For example, it involves if the first**

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**drug to market is dose twice a day, a new innovator will try to come up with a drug that is dosed once a day. If we remember Captopril, which was a drug for blood pressure launched by Bristol-Meyers Squibb many years ago, novel mechanism of action, but it wasn't once a day. Enalopril was able to come along from a competitor and steal the market from Captopril because Enalopril was dosed once a day.**

**So dose frequency is a way to differentiate in the marketplace.**

**Another way is dose administration. For example, if a drug is available by an oral capsule, it may be, it may be to a company's advantage to develop a patch that delivers the same molecule or delivers a different molecule as a competitor.**

**It may -- if a drug is dosed, because of a short mechanism of action, if a drug has to be dosed three times a day, it may be to a competitor's advantage to develop a long acting controlled release formulation. So drug companies differentiate by reformulating medications or formulating their own medications**

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**in novel ways.**

**And then, of course, there's the generic industry that competes on price alone.**

Q. Is that the entirety of your opinion regarding the importance of product differentiation in the marketplace?

**A. No. I thought your question dealt with how do companies differentiate.**

Q. Okay. Do you have an opinion on the importance of product differentiation in the marketplace?

**A. I think I used the word vital. If I didn't use it, I will use it now. Product differentiation I said was not important for an innovator, but was important for any follow-on company.**

Q. Are you intending to opine on the importance of product differentiation with regard to ABT-518?

**A. Not in terms of its ultimate launch, but perhaps in terms of its development.**

Q. What would you opine on regarding the product differentiation of ABT-518?

Do you recall the difference between

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the three drugs, 518 --

**A. 518 was --**

MR. ZWICKER: Well, objection.

You want him to answer the last?

BY MS. GUZELSU:

Q. Let's start with the last question.

Do you recall the difference between the three drugs? Do you remember which 518 is, which 594 is, and which 773 is?

**A. Yes.**

MR. ZWICKER: Objection.

You can answer.

BY MS. GUZELSU:

Q. Okay. All right. So now going back to my earlier question.

Do you expect to opine on product differentiation with regard to ABT-518?

**A. Not product differentiation in the marketplace as I've mentioned it here. 518 had no hope of ever reaching the marketplace, so why would I talk about differentiation in the marketplace?**

Q. And when you say "518 had no hope of reaching the marketplace," what is the basis of

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that opinion?
**A. All the Abbott documentation that I looked at, and I viewed it from my perspective as a team leader, as a drug development team leader, suggested to me that the compound was destined to be killed by the management. And in fact, even reviewing the documentation, it was killed the day before the deal was signed, it was -- development was reinstated the day after the deal was signed, and the molecule was killed a month and a half later in May. So it wasn't headed for the marketplace.**
Q. When you say "the drug was killed the day before the deal was signed --"
**A. Development was terminated is what I mean.**
Q. That's not actually accurate, though. A clinical hold was put on the clinical trial.
MR. ZWICKER: Objection. Argumentative.
BY MS. GUZELSU:
Q. And then it was restarted the next day.
MR. ZWICKER: Objection.

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Argumentative. Assumes facts not in evidence.
BY MS. GUZELSU:
Q. Was there a clinical trial for ABT-518 that was continuing after the deal was signed?
**A. For about a month only, month and a half.**
Q. And are you aware that in mid May there was a conference, the ASCO conference, that revealed certain information regarding competitor MMPIs?
MR. ZWICKER: Objection. Assumes facts not in evidence.
**A. I've had some discussion with Mr. Zwicker and Mr. Davis about that.**
**BY MS. GUZELSU:**
Q. But you haven't reviewed any documents regarding the ASCO conference?
**A. No, I've not seen the abstracts from the conference.**
Q. So you don't know what information was revealed regarding competitor MMPIs at the ASCO conference?
**A. I do not.**
Q. So your entire knowledge regarding the

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competitor MMPIs and what was said about them at the conference is based on conferences with counsel?
MR. ZWICKER: Objection. Misstates the testimony.
**A. I haven't talked about competitive MMPIs. I've only talked about the 518 development.**
**BY MS. GUZELSU:**
Q. I understand that.
Let's go back to this idea of product differentiation.
Is there any opinions that you're planning on expressing regarding ABT-773 and product differentiation in the marketplace?
**A. Yes.**
Q. And what are those opinions?
**A. 773 is the antibiotic they were trying to develop, and as I recall they were focused on community acquired pneumonia. And they wanted to differentiate the drug by its dose frequency, they wanted to get what we call a QD dosage, once a day dosage, and they were studying it for once a day dosage as opposed to twice a day**

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**dosage, they wanted to differentiate by getting once a day dosage.**
**And my review of the Abbott documentation suggested that they weren't, they weren't seeing -- they weren't getting any success with their once a day formulation, and they -- the documentation discussed that the drug was going to end up being a twice a day drug.**
Q. What documentation are you referring to?
**A. The Abbott internal documentation that I was provided.**
Q. And what were the dates of those documents that indicated the once a day dosing in your opinion was not going to be possible?
MR. ZWICKER: Objection.
**A. I can't provide dates offhand.**
**BY MS. GUZELSU:**
Q. Was it the beginning of 2001, after the deal was signed later in 2001?
MR. ZWICKER: Objection.
**A. I can't provide dates without looking at them.**

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BY MS. GUZELSU:
Q. So at some point during the development of 773, Abbott realized that it wouldn't be able to reach once a day dosing, but you're not aware of when?
MR. ZWICKER: Objection. Misstates the testimony.
**A. My recollection of the documentation that I reviewed suggested to me that dose frequency was a question, an open question, an unanswered question before the deal was signed with the earliest documents I have, and I don't have many documents that predate fourth quarter 2000.**
MR. ZWICKER: Can we take a short break? We've been going for an hour and 15 minutes.
**A. Works for me.**
MR. ZWICKER: Are you done with your answer?
THE WITNESS: I was.
MS. GUZELSU: Sure. Can we go off the record?
THE VIDEOGRAPHER: Going off the

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record. The time is 10:24.
(A recess was taken.)
THE VIDEOGRAPHER: Back on the record. The time is 10:31.
BY MS. GUZELSU:
Q. Dr. Gold, going back to 518 for a minute.
You testified earlier that 518 was destined to be killed by the management, and you stated as the basis of your opinion that the drug was terminated, restarted again, and then eventually terminated, is that correct?
MR. ZWICKER: Objection. Misstates the testimony.
**A. Abbott documentation, my reading of Abbott documentation suggested that the drug was terminated the day before the deal was signed, terminated by Abbott management the day before the deal was signed, it was placed back in development the day after the deal was signed, and ultimately terminated in May.**
BY MS. GUZELSU:
Q. Is that the sole basis for your opinion that it was destined to be killed by the

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management?
MR. ZWICKER: Objection. Vague.
**A. Was that the sole basis for my opinion.**
BY MS. GUZELSU:
Q. Well, what I mean -- let me rephrase this so it's clear.
MR. ZWICKER: Are you done with your answer? Can you answer that question, or do you want another one?
THE WITNESS: I'll take another one.
MR. ZWICKER: She'll give you another one.
THE WITNESS: I'll give you the same answer.
BY MS. GUZELSU:
Q. Did you review any of the documents regarding 518 that discuss --
**A. Excuse me.**
MR. ZWICKER: Are you okay?
Q. Are you all right?
Okay. Did you review any documents regarding 518 that discuss the efficacy of 518?
Should we go off the record for a

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minute?
**A. No.**
**I reviewed the totality of documents provided me by counsel, so yes, I reviewed everything.**
**But what I said originally was the compound was destined to be killed, it was dead when the deal was signed, it was for some strange inexplicable reason resurrected the day after the deal was signed. One can only speculate, and --**
MR. ZWICKER: Don't speculate.
THE WITNESS: I won't.
And it was killed a month and a half later.
BY MS. GUZELSU:
Q. I understand that, Dr. Gold.
But my question is; you stated that it was destined to be killed by the management. And I'm asking if the reason for your opinion that it was destined to be killed by management is based solely on the documents you reviewed regarding the stopping of the clinical trial, the restart of the clinical trial, and its

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MR. ZWICKER: I should have said this when we started. The stipulations that we've used historically are in effect for this one as well, right? Which is that objections except as to form are reserved, and he can read and sign himself, he doesn't need to do so in front of a notary, right?
MS. GUZELSU: That's correct.
MR. ZWICKER: Okay.
MS. GUZELSU: Can you read back the last question for me? Sorry. Before the notary.
I'm good. Thank you.
BY MS. GUZELSU:
Q. How about Phase II trials regarding ABT-594, are you planning on offering any opinions regarding the M99-114 study?
**A. Well, that's the only study of 594 that was ongoing at the time of the deal, and enrollment in that study was halted because of side effects and dropouts, and I may use something from that study in one of my PowerPoint overheads.**
Q. When you say "enrollment was halted

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because of side effects, dropouts," what's the basis of your opinion?
**A. The clinical reports.**
Q. What do you mean by "clinical reports"?
**A. Abbott documentation. A lot of the Abbott documentation dealt with discussion of the 114 trial, clinical trial, and a lot of it had to do with discussing the difficulty the investigators were having in meeting the enrollment targets.**
Q. And what's the basis of your opinion that the difficulty in meeting the enrollment targets was based on side effects or dropouts?
**A. That's the conclusion drawn by the clinical reports.**
Q. Do you remember specifically which clinical reports?
**A. Specifically, no.**
Q. Were they formal clinical reports? Are you talking about internal correspondence between Abbott employees?
MR. ZWICKER: Objection. Vague, compound.

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BY MS. GUZELSU:
Q. You can answer the question.
**A. There was a huge volume of discussion within Abbott on how to enhance enrollment, there was some discussion about hiring clinical trial enrollment companies, and within some of that discussion was mention that we're having trouble because a lot of patients are dropping out because of the nausea, vomiting, and strange dreams and dizziness. There wasn't a -- there were dozens if not hundreds of pages discussing the shortfall in enrollment and the dropout rate, and blaming the dropout rate on the side effects.**
Q. Dr. Gold, can we turn back to Exhibit 2 of your report?
These documents listed under ABT-594, is this the sum total of documents you reviewed regarding the development of ABT-594?
**A. Yes.**
Q. And there are 13 documents listed here?
**A. Yes.**
Q. So the basis of your opinion that the

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enrollment was halted because of side effects and dropouts is based on these 13 documents that you reviewed?
**A. If you'll notice, one document in particular, Project Review PowerPoint, and that's 24 pages. If you look at Project Review above that, the third one down, you'll see that it's 34 pages. So when I said there were dozens if not hundreds of documents, I wasn't exaggerating.**
Q. Okay. I would hate for you to think that I was accusing you of exaggerating. I just want to make sure that we were clear what we were talking about here.
MR. ZWICKER: Let her finish.
BY MS. GUZELSU:
Q. So is it possible that enrollment was halted for reasons other than the side effects and dropouts in this case?
MR. ZWICKER: Objection to what's possible.
**A. Would you repeat the question?**
**BY MS. GUZELSU:**
Q. Was there any indication in the Abbott

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documents you reviewed that people were dropping out for reasons other than side effects or -- no, that's it, for reasons other than side effects?

MR. ZWICKER: Objection.

**A. No. The sum total of discussion centered around side effects.**

**BY MS. GUZELSU:**

Q. Are you aware that there was a placebo arm in the M99-114 study?

**A. Yes, there were four arms.**

Q. Isn't it possible that people were dropping out for lack of efficacy because they were in the placebo arm of the compound?

MR. ZWICKER: Objection.

**A. Isn't it possible.**

**BY MS. GUZELSU:**

Q. Isn't it likely?

MR. ZWICKER: Objection.

**A. I cannot -- I cannot address probability and likelihoods.**

**BY MS. GUZELSU:**

Q. Okay. Have you stated all the opinions that you're intending to state at trial

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regarding the M99-114 study for ABT-594?

**A. To date.**

Q. You have no other opinions you're planning on offering?

**A. I don't know. My preparation to date is the sum total of my opinions. But between now and trial it could change, I could have additional opinions, I could see additional documentation.**

Q. Can we turn to Page 5 of your report, please?

At the top of the page you discuss Phase III studies in the first full paragraph. Would you like to review that paragraph?

(Witness reviewing document.)

BY MS. GUZELSU:

Q. Are you planning on offering any opinions at trial regarding Phase III studies for ABT-773?

**A. I haven't completed my preparation of my overheads as yet, so I don't know.**

Q. Okay. So as of date, this is the sum total of opinions you're planning on offering on Phase III clinical trials?

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**A. Right.**

Q. And on Pages 5 and 6 of your report, you discuss generally the process for NDAs, is that correct, new drug applications?

MR. ZWICKER: Objection. The document says what it says.

You can answer.

**A. On Page 5 and 6?**

Q. 5 and 6. Well, maybe just 5. There's a short paragraph on new drug applications.

**A. Right.**

Q. Are you planning on opining regarding any new drug applications that Abbott filed?

**A. No.**

Q. And the following paragraph, which is on investigational new drug applications, are you planning on offering any opinions regarding any INDs for 518, 594 or 773?

**A. Not yet.**

Q. On top of Page 6 you state that you're expected to testify concerning the typical planning structure and operation of clinical trials.

Can you describe what the typical

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planning and operation of a clinical trial is?

MR. ZWICKER: Objection.

BY MS. GUZELSU:

Q. You can start with planning if you'd like, what the typical planning of a clinical trial is.

MR. ZWICKER: Objection.

**A. Planning a clinical trial usually begins with an understanding of what the end points are, what is it they want to measure.**

**Then the type of study is designed, whether it is sketched out, whether it is, for example, an increasing dose study, a three armed or four armed placebo controlled study, whether it will be double blind, whether it will be to define dose, a Phase II study to define dose. Then the actual protocol is written. After the protocol is the experimental design set to paper.**

**After the protocol is written and approved by management, it's passed by or reviewed by prospective investigators as well as institutional review boards, IRBs.**

**When all that is done and everyone is**

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Q. Do they receive payments that cover more than their expenses?
**A. Of course, there's profitability built in.**
Q. So there is some profit regarding the investigators' work? There's profit built into the amounts that they're paid?
**A. Of course.**
Q. Okay. On Page 7 at the bottom you discuss the principal design elements of a clinical study protocol, and your discussion of protocols in general goes on to Page 8.
Are you planning on offering any opinions regarding clinical study protocols for 518?
MR. ZWICKER: Object to the preamble. You can answer.
**A. Not specifically.**
**BY MS. GUZELSU:**
Q. How about clinical study protocols for 594?
**A. Not specifically.**
Q. And clinical study protocols for 773?
**A. Again, not specifically.**

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Q. Do you have any general idea of opinion testimony you may be offering regarding 518 on clinical study protocols?
**A. I haven't -- I haven't fit any Abbott protocols into my presentation as yet.**
Q. Okay. If you can go to the top of Page 8. Your report states "one or more statisticians usually are involved in the development of the protocol and the statistician's duties typically include estimating very closely how many patients must be enrolled in order to detect a statistically significant difference between placebo and the test drug, or between different doses of the test drug."
Do you see that?
**A. Yes.**
Q. Can you tell me what a statistically significant difference is?
MR. ZWICKER: Objection.
BY MS. GUZELSU:
Q. As referred to in your report.
**A. A statistician's definition of a statistically significant difference is a**

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**95 percent probability of not committing a type one error.**
Q. Would you agree that the number of patients that are enrolled in a clinical trial is not the only factor that determines the power of a study?
**A. Would I agree? Of course.**
Q. Okay. Does the standard deviation or variability also affect the power of a clinical trial?
MR. ZWICKER: Objection.
**A. It's one of the variables in the power.**
**BY MS. GUZELSU:**
Q. Calculation?
**A. Calculation.**
Q. What about the effect size?
MR. ZWICKER: Objection.
**A. I can't hear.**
**BY MS. GUZELSU:**
Q. I'm sorry. What about the effect size, is that also a factor in power calculations?
**A. Of course.**

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Q. Do you intend to offer any opinions on the M99-114 clinical study with regard to power?
**A. I plan to discuss that the Phase II trial 114 in which enrollment was halted never reached its targeted enrollment or its enrollment target, and accordingly that would affect the power of the study and the ability to detect differences among the doses. Yes.**
Q. Is that the sum total of the opinion you're intending to offer regarding the power of the M99-114 study?
**A. Right now, yes.**
Q. Okay. It states here that most researchers who assess the power of their studies use a .80 standard -- I'm sorry, use .80 as a standard for adequacy.
Does that mean that there are some researchers who don't use .80 as a standard for adequacy?
**A. No, some of them don't calculate power.**
Q. Some of them don't calculate power, but the rest of them all use .80?
**A. Yes.**

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you've read regarding 773?
**A. I can't recall.**
Q. Is there a date on the document that you relied on?
**A. There's no date on this document.**
Q. Do you have any sense of when ABT-773 diverged from its target profile in those manners that you describe in your report?
**A. In my reviewing the totality of 773 documentation, there was discussion about 773's profile, especially in community acquired pneumonia, I think as early as fourth quarter 2000.**
Q. When you say "profile" in terms of community acquired pneumonia, what do you mean by that?
**A. I'm just thinking about all the documents I saw, and I don't think there was anything remarkable in the last half of the documents I looked at that was different from the first half of the documents I looked at. And since they were chronological, I don't think the story of 773 changed significantly.**
**I think early on looking at it there**

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**was uncertainty around its dose frequency, there was uncertainty around the FDA's sensitivity toward the QT prolongation and liver function, and there was sensitivity about trying to make a claim against resistant bacteria.**
**I don't think there was any -- I think there was enough uncertainty about it throughout the documentation that that was a problem going into the deal.**
Q. A problem going into the deal, so prior to March 13, 2001?
**A. I think so.**
Q. Did you review any documents regarding the Ketek advisory that came out in April of 2001?
**A. I can't recall.**
Q. You don't remember any documents regarding another drug that a company called Aventis was developing called Ketek?
**A. I don't recall it specifically.**
Q. So you would have no opinion regarding the effect that advisory had on the development of 773?
MR. ZWICKER: Objection.

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**A. Well, if I haven't seen it, I can't have any opinion about it.**
**BY MS. GUZELSU:**
Q. Okay.
**A. I'm just going to stand on what I've said. 773 looked like a problem compound before the deal, and its picture really never changed after the deal.**
Q. What do you mean by "problem compound"?
**A. They didn't know if they had once a day dosing, they didn't know if the drug had a clean cardiovascular or liver safety profile, and they didn't know if they could make a claim against macrolide resistant bacteria, or something like that.**
Q. They didn't know is what you're stating? They didn't know one way or the other?
**A. Yes, they had no data to support any of those contentions, or they had insufficient data to support the contention that they had once a day dosing and the other two.**
Q. During the development of any drug that has as its target profile once a day

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dosing, isn't there a point at which they don't know whether it's going to be once a day?
MR. ZWICKER: Objection.
**A. Before the start of clinical trials they won't know. But that's a question generally that is nailed down in the very early Phase I studies.**
**BY MS. GUZELSU:**
Q. Generally nailed down in early Phase I studies?
**A. Because once a day dosing, if that's required to differentiate from a competitor, that's a knockout factor for that compound.**
Q. Is it possible that once a day dosing could be established for certain indications and not other indications?
MR. ZWICKER: Objection for what's possible.
**A. It's possible, but it may not be plausible, because the pharmacokinetics of the drug won't change.**
**BY MS. GUZELSU:**
Q. But for perhaps a more serious indication you might be able to have -- you

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indications, and only in their aggregate would the market size be large enough to support sale of it, the chances are if the drug deviated and only achieved three of five, for example, it wouldn't go to market.

BY MS. GUZELSU:

Q. What if one of those indications was sort of the lion's share of what was expected to be the marketing?

MR. ZWICKER: Objection. Vague.

Go ahead.

**A. If it meets its sales target, if the target market size is sufficient, it will go to market. If not, if it's a successful development but the market size is too small, a large drug company will sell it off.**

BY MS. GUZELSU:

Q. Can we turn to Page 16 of your report, which is Exhibit 1, please?

The first sentence of that main paragraph there says "Dr. Gold further is expected to testify that when a compound is or is about to be terminated for any reason during clinical development, many Big Pharma companies

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begin to develop a 'backup' or 'replacement' compound."

Is it your opinion that Big Pharma companies only begin to develop backup or replacement compounds when a compound is about to be terminated?

**A. I think naturally that depends on what company it is. It's very much a decision. And most companies are loathe to bring two molecules into clinical development at the same time against the same indication, they don't like to compete against themselves. But more to the point, it just eats up resources.**

Q. So most companies will not --

**A. I haven't finished.**

Q. I'm sorry. Please continue.

**A. I know there's some sensitivity around my claim here that Big Pharma companies begin to develop a backup only if something is failing, and I think the key word here is develop.**

**When I talk about develop in this document, I'm talking about clinical development, and clinical development I've already said is extremely expensive, measured in**

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**hundreds of millions of dollars.**

**So if companies have a backup molecule, they'll frequently take it in development to the point where it is prepared to go into the clinic, but they'll keep it back from putting it in clinical development. They may even file an IND but not initiate any trials just to be able to initiate that trial should the primary molecule fail.**

**Some very wealthy companies will take both molecules as far as Phase I, and then hold one molecule in Phase I and advance the other one. So technically yes, they'll have two molecules in development, but one is on hold.**

Q. So in your opinion, molecules that have the same mechanism of action will not be co-developed simultaneously by any pharmaceutical company?

MR. ZWICKER: Objection.

**A. Yes, that is my opinion. Most companies will -- are so resource conscious that they will not develop two molecules with the same mechanism at the same time.**

BY MS. GUZELSU:

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Q. What if they're for different indications?

**A. I think that's splitting hairs. I think if one molecule is going to be developed for one primary indication and another molecule for another primary indication, and they have the same mechanism of action but they don't cross over, sure, there's a possibility they'd both be developed.**

**But if molecules have the same mechanism of action they're going to be active against the same diseases, and instead of developing two molecules against two diseases it's to their best interest to develop one molecule against both diseases.**

Q. In your experience, the companies that you've worked in, have you ever seen two compounds being developed simultaneously that have the same mechanism of action?

**A. Only historically. Merck once upon a time developed two diuretics, one called thiazide and one called hydrochlorothiazide, and they differ solely on the basis of potency, one is ten times more potent than the other, but**